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HAWAII ADMINISTRATIVE RULES

TITLE 11

DEPARTMENT OF HEALTH

CHAPTER 48

VENTILATION SYSTEMS

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§11-48-1 Purpose. The purpose of this chapter is to define the minimum ventilation rates and indoor air quality that is acceptable for human occupancy. It is also the purpose of this chapter to establish healthful standards that will minimize the potential for adverse health effects. [Eff: _____] (Auth: HRS §§321-9, 321-11.3, 321-411, 321-412, 321-413) (Imp: HRS §§321-1, 321-11)

§11-48-2 Definitions. As used in this chapter, unless the context otherwise requires:

“Air conditioning system” means a system designed to treat air to meet the requirements of conditioned space by controlling its temperature, humidity, cleanliness and distribution.

“Air, Exhaust” means air removed from a space and discharged to outside the building by means of mechanical or natural ventilation systems.

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"Air, Makeup" means any combination of outdoor and transfer air intended to replace exhaust air and exfiltration.

"Air, Outdoor" means ambient air that enters a building through a ventilation system, through intentional openings for natural ventilation, or by infiltration.

"Air, Supply" means air delivered by mechanical or natural ventilation to a space, composed of any combination of outdoor air, recirculated air, or transfer air.

"Air, Transfer" means air moved from one indoor space to another.

"Applicant" means a person who owns, operates, or is responsible for a building with one or more ventilation systems.

"ANSI/ASHRAE Standard 62.1-2007" means the American National Standards Institute/American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality.

"Buildings" means any structure used in whole or in part as a place for resort, assemblage, lodging, business, industry, trade, traffic, occupancy or use by the public or by a segment of the public. For the purpose of these rules, buildings shall not include residential dwellings.

"Buildings, Existing" means buildings, including any additions or alterations, structurally completed or for which plans have been approved by the department and construction initiated prior to the effective date of these rules.

"Buildings, New" means buildings, including any additions or alterations, for which plans have not been approved by the department and construction as not in progress prior to the effective date of these rules.

"Cfm" means cubic feet per minute.

"Department" means the department of health.

"Director" means the director of the department of health, or the director's duly authorized agent.

"Equipment" means any or all devices used in an operation or activity.

"HRS" means Hawaii Revised Statutes.

"Individual" means any human being.

"Inspection" means an official examination or observation including but not limited to, tests, surveys and monitoring to determine compliance with rules, orders, requirements, and conditions of the department.

"IMC 2006" means the International Mechanical Code 2006.

"License" means written authorization from the director to install and operate a mechanical ventilation system.

"Licensed professional designer" means an architect or professional engineer in the field of mechanical engineering licensed by the department of commerce and consumer affairs.

"Licensee" means any owner or operator of a public building and/or property issued a license by the department and who is legally obligated to have a license with the department pursuant to these rules.

"NFPA 96 2004" means the National Fire Protection Association 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2004 Edition.

"Occupiable space" means an enclosed space intended for human activities,

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excluding those spaces intended primarily for other purposes, such as storage rooms and equipment rooms, that are only occupied occasionally and for short periods of time.

"Operate" means perform or conduct any activity associated with ventilation systems.

"Operator" means a lessee or agent of the owner, a lessee of a device or the lessee's agent, a tenant, or any individual who has regular control of the premises, or of any equipment or device.

"Owner" means the owner of the freehold of the premises or lesser estate therein, or mortgagees thereof.

"Person" means any individual, partnership, firm, association, public or private corporation, trust estate or any other legal entity.

"Public buildings" means any structure used in whole or in part as a place for assemblage, lodging, business, industry, trade, traffic, occupancy or use by the public or a segment of the public.

"Residential dwelling" means a room or rooms connected together constituting an independent housekeeping unit for an individual or a family including, but not limited to houses, apartments, and condominiums.

"Ventilation" means the process of supplying and removing air by natural or mechanical means to and from any space. Such air may or may not be conditioned.

"Ventilation system" means air conditioning or ventilating system.

[Eff] (Auth: HRS §§321-9, 321-11) (Imp: HRS §§321-1, 321-11)

§11-48-3 General requirements. (a) The provisions of these rules apply when any ventilation system is to be installed or replaced in new or existing buildings, used or to be used, as public buildings after the adoption date of these rules.

(b) No person, owner or operator of a building shall install, replace, alter or operate a ventilation system, totaling over twenty-one hundred cfm or totaling over five tons of refrigeration cooling capacity or more, without first obtaining from the department a license covering the specific installation, replacement, alteration, or operation of such system.

(c) No person, owner or operator of a building or commercial cooking operation shall install, replace, alter or operate a kitchen hood and ventilation system without first obtaining from the department a license covering the specific installation, replacement, alteration, or operation of such systems.

(d) Each licensee shall install, operate, and maintain a ventilation system in accordance with the specifications of the final mechanical plan designed by a licensed professional designer.

(e) Each licensee shall maintain a copy of the final mechanical plan for the ventilation system. The plan shall be available for inspection for the department.

(f) Each licensee shall maintain records for the installation, test and balance, and maintenance of any ventilation system. Additional record requirements are specified in these rules.

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(g) Each licensee shall afford the department at all reasonable times entrance to private or public property for the purpose of inspecting and investigating ventilation systems for compliance with these rules.

(h) Upon receipt of an inspection report rendered by the department, each licensee shall complete corrective action to meet the requirements of this chapter in the time period specified by the department. If additional time is necessary to complete the corrective action, a written request shall be submitted to the department for review and determination before the date specified for completion of the corrective action.

[Eff] (Auth: HRS §§321-9, 321-11) (Imp: HRS §§321-1, 321-11)

§11-48-4 Additional requirements. The department may impose upon any person or licensee such requirements in addition to those established in these rules as it deems appropriate or necessary to minimize danger to public health and safety or property.

[Eff] (Auth: HRS §§321-9, 321-11) (Imp: HRS §§321-1, 321-11)

§11-48-5 License. (a) Applicability. The director may grant, modify, suspend, revoke or deny licenses to install, modify, or operate any ventilation system. For the purpose of these rules, replacement of existing units which have deteriorated beyond repair with a new unit of equal supply air, outside air and air distribution shall be exempt.

(b) Application for license.

(1) Every application for license shall be submitted on forms furnished by the director.

(2) The applicant shall be the owner or operator of the building where a ventilation system will be installed and operated.

(3) The applicant shall utilize the services of a licensed **professional designer** to design a building's ventilation system.

(4) The applicant shall submit sufficient information to enable the director to make a decision on all applications. Subject to the request of the director, every application for license may include the following information:

(A) Applicant identification;

(B) Project identification;

(C) Type of occupancy;

(D) Design specifications including equipment specifications, area served, square footage of conditioned area, number of persons occupying the conditioned space, outdoor air cfm, supply air cfm and exhaust cfm;

(E) Licensed **professional designer's** certification; and

(F) Such other information as the director may request.

(c) Fees.

(1) Every applicant for license shall pay the applicable fees as set forth in subsection (d);

(2) Fees shall not be refunded nor applied to any subsequent application; and

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- (3) Fees shall be made payable to the department.
- (d) Fee schedule. The fee schedule for a license shall be as follows:
 - (1) License fees for ventilation systems.
 - (A) Ventilation systems with a combined total of no more than ten thousand (10,000) cfm of supply air - \$25.
 - (B) Ventilation systems with a combined total of greater than ten thousand (10,000) cfm but no more than thirty thousand (30,000) cfm of supply air - \$50.
 - (C) Ventilation systems with a combined total of greater than thirty thousand (30,000) cfm of supply air - \$100.
 - (2) License fees for exhaust fans, supply air fans and kitchen-related hoods.
 - (A) Single kitchen hood exhaust fan and related make-up air fan - \$25.
 - (B) Multiple kitchen hood exhaust fans and related make-up air fans - \$100.
 - (C) Toilet and general exhaust fans - \$10.
 - (3) License fees for change of ownership or usage.
 - Change of owner/operator or usage - \$10.
 - (e) License conditions and restrictions. Each license may be subject to such reasonable conditions as the director may prescribe.
 - (f) Suspension, revocation, denial. The department may, pursuant to HRS-91, suspend, revoke, or deny any license if it is determined that:
 - (1) There is a violation of any condition of the license;
 - (2) There is a violation of this chapter;
 - (3) There are deviations from, or failure to comply with all information or facts contained within the license;
 - (4) The license was obtained by misrepresentation or failure to disclose fully all relevant facts;
 - (5) There is a change in any condition that requires either a temporary or permanent reduction or elimination of the excessive noise emission; or
 - (6) Such action is in the public interest.
 - (g) Records. The director shall keep records of all licenses and their disposition. [Eff _____] (Auth: HRS §§321-9, 321-11, 321-11.5)(Imp: HRS §§321-1, 321-11)

§11-48-6 Ventilation systems. (a) Ventilation systems shall be designed by a licensed **professional designer** in accordance with the **IMC 2006 and/or ANSI/ASHRAE Standard 62.1-2007**.

(b) Deviations from the **IMC 2006 and/or ANSI/ASHRAE Standard 62.1-2007** shall be justified in writing by a licensed **professional designer**. The licensee shall submit the written justification to the department.

(c) Ventilation systems shall be operated and maintained by the licensee in accordance with the specifications of the final mechanical plan designed and certified by a

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licensed **professional designer**.

(d) Ventilating systems shall be designed to prevent reentrainment of exhaust contaminants, condensation or freeze-ups, and growth of microorganisms.

(e) Makeup air inlets and exhaust air outlets shall be located to avoid contamination of the makeup air.

(f) Contaminants from sources such as cooling towers, sanitary vents, vehicular exhaust from parking garages, loading docks and street traffic should be avoided.

(g) Ventilating ducts and plenums shall be constructed and maintained to minimize the opportunity for growth and dissemination of microorganisms through the ventilation system.

(h) Contaminants from stationary local sources within the space shall be controlled by collection and removal as close to the source as practicable.

(i) Fuel-burning appliances shall be provided with sufficient air for combustion and adequate removal of combustion products.

(j) When compliance with the chapter does not provide adequate control of gaseous contaminants, methods based on sorption with or without oxidation or other scientifically proven technology shall be used. Such methods may be tailored to deal with a specific contaminant.

(k) High humidity can support the growth of pathogenic or allergenic organisms. Relative humidity in habitable spaces should be maintained between 30% and 60% relative humidity to minimize growth of organisms.

(l) Air-handling unit condensate pans shall be designed for self-drainage to preclude the buildup of microbial slime.

(m) All air-handling and fan coil units shall be easily accessible to facilitate inspection, repair and preventive maintenance.

(n) Ventilation systems for spaces with intermittent or variable occupancy may have their outdoor air quantity adjusted by the use of dampers providing they have sufficient dilution to maintain contaminant concentrations within acceptable levels at all times.

(o) Ventilation systems shall be tested and balanced after initial installation to verify compliance with the specifications of the final mechanical plan designed by a licensed **professional designer** as well as the requirements of this chapter. The test and balance record shall be maintained by the licensee for inspection by the department.

[Eff] (Auth: HRS §§321-9, 321-11, 321-11.5) (Imp: HRS §§321-1, 321-11)

§11-48-7 Commercial cooking operations (a) Kitchen hoods and ventilation systems for commercial cooking operations shall be designed by a licensed mechanical engineer in accordance with **the IMC 2006 and/or NFPA 96 2004**.

(b) Deviations from **the IMC 2006 and/or NFPA 96 2004** shall be justified in writing by a licensed **professional designer**. The licensee shall submit the written justification to the department.

(c) Cooking equipment used in the processes producing smoke or grease-laden vapors shall be equipped with an exhaust system that complies with all equipment and performance requirements of this standard.

(d) Kitchen hood and ventilation systems for commercial cooking operations shall be operated and maintained by the licensee in accordance with the specifications of the final mechanical plan designed and certified by a licensed professional designer.

(e) Kitchen hood and ventilation systems for commercial cooking operations shall be tested and balanced after initial installation to verify compliance with the specifications of the final mechanical plan designed by a licensed professional designer as well as the requirements of this chapter. The test and balance record shall be maintained by the licensee for inspection by the department. [Eff] (Auth: HRS §§321-9, 321-11, 321-11.5) (Imp: HRS §§321-1, 321-11)

§11-48-8 Outdoor air. (a) The outdoor air provided by a ventilation system for occupiable space shall be in accordance with the final mechanical plan designed by a licensed professional designer.

(b) The outdoor air shall be taken from a clean, uncontaminated source.

(c) All outdoor air intakes shall be screened and shall be located as far as possible from stacks and vent outlets to prevent the discharged air from entering the outdoor air intake.

(d) All outdoor air intakes shall be located to be readily accessible for cleaning and shall be maintained properly in accordance with Section 11-48-12.

[Eff] (Auth: HRS §§321-9, 321-11, 321-11.5) (Imp: HRS §§321-1, 321-11)

§11-48-9 System maintenance. (a) All persons and licensees who own and operate buildings with ventilation systems shall maintain these systems in good working order and shall operate them to provide acceptable atmospheric indoor air quality in occupiable space during all periods of occupancy.

(b) Provisions shall be made for the periodic in-situ cleaning of cooling coils and condensate pans. [Eff] (Auth: HRS §§321-9, 321-11) (Imp: HRS §§321-1, 321-11)

§11-48-10 Inspections. The director or duly authorized agent, upon receiving reports of, or identifying any actual or suspected non-compliance of this chapter is authorized, upon presenting appropriate credentials to the owner, or agent in charge:

- (1) To enter at all reasonable hours, any premises, to conduct an investigation, to ascertain compliance or noncompliance with this chapter, or any permit, issued pursuant to this chapter, to make reasonable tests in connection therewith, and to recommend requirements for compliance measures;

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- (2) To inspect at reasonable times and within reasonable limits and in a reasonable manner, any air conditioning and ventilating system or any of its component parts or the conditions resulting therefrom for compliance; and
- (3) To require that the owner, operator, or agent of any premises cease operation of all pertinent equipment, or devices for the purpose of conducting an investigation and inspection thereof.
- (4) No confidential information secured pursuant to this section by any official or employee of the department, within the scope and course of the official's or employee's employment, in the review and inspection of air conditioning and ventilation systems, shall be disclosed by the official or employee, except as it relates directly to the air conditioning and ventilation systems, and only in connection with the official's or employee's official duties and within the scope and course of the official's or employee's employment.
- (5) Persons conducting inspections relative to this chapter shall have been trained in mechanical ventilation systems and indoor air quality. Persons who have completed training shall be certified as competent by the director. [Eff _____] (Auth: HRS §§321-9, 321-11) (Imp: HRS §§321-1, 321-11)

§11-48-11 Enforcement (a) Initial violation. If the director determines that any person has violated or is violating this chapter, the director:

- (1) Shall cause written notice to be served upon the alleged violator or violators. This notice shall specify the alleged violation and may contain an order specifying a reasonable time during which that person shall be required to take any measures that may be necessary to correct the violation and give periodic progress reports;
- (2) May require that the alleged violator or violators appear before the director for a hearing at a time and place specified in the notice and answer the charges complained of; and
- (3) May impose penalties as provided in section 321-20, HRS, and section 11-48-17 by sending a notice in writing, either by certified mail or by personal services, to the alleged violator or violators describing the violation.

(b) Continuing violation. If the director determines that any person is continuing to violate this chapter after having been served a notice of violation, the director:

- (1) Shall cause written notice to be served upon the alleged violator or violators. The notice shall specify the alleged violation and shall contain an order requiring that person to submit a written schedule within thirty days specifying the measures to be taken and the time within which the measures shall be taken to bring that person in compliance with this

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- (2) Shall accept or modify the submitted schedule within thirty days of receipt of the schedule. Any schedule not acted upon after thirty days of receipt by the director shall be deemed accepted by the director;
 - (3) Shall issue to the alleged violator or violators a cease order against the activities that violate this chapter, or any condition of a permit issued pursuant to this chapter if that person does not submit a written schedule to the director within thirty days. This order shall remain in effect until the director accepts the written schedule; and
 - (4) May impose penalties as provided in section 321-20, HRS, or section 11-48-17 by sending a notice in writing, either by certified mail or by personal services, to the alleged violator or violators describing the violation.
- (d) Violation of remediation schedule or order. If the director determines that any person has violated the provisions of an accepted schedule or has violated an order issued under this section, the director shall impose penalties by sending a notice in writing, either by certified mail or by personal service, to that person, describing such nonadherence or violation.
- (e) Violation order.
 - (1) Any order issued under this chapter shall become final, unless no later than twenty days after the notice of order is served, the person or persons named therein request, in writing, a hearing before the director.
 - (2) Any penalty imposed under this chapter shall become due and payable twenty days after the notice of penalty is served, unless the person or persons named therein request, in writing, a hearing before the director.
 - (3) Whenever a hearing is requested on any penalty imposed under this chapter, the penalty shall become due and payable only upon completion of all review proceedings and the issuance of a final order confirming the penalty in whole or in part.
- (f) Contested hearing.
 - (1) Upon request for a hearing, the director shall require that the alleged violator or violators appear before the director for a hearing at a time and place specified in the notice and answer the charges complained of.
 - (2) Any hearing conducted under this section shall be conducted as a contested case under chapter 91, HRS.
 - (3) If, after a hearing held pursuant to this section, the director finds that a violation or violations have occurred, the director shall affirm or modify any penalties imposed, or shall modify or affirm the order previously issued, or issue an appropriate order or orders for the prevention, abatement, or control of the violation involved, or for the taking of such other corrective action as may be appropriate.
 - (4) If, after a hearing on an order or penalty contained in a notice, the director finds that no violation has occurred or is occurring, the director shall rescind the order or penalty.

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- (b) Any person who denies, obstructs, or hampers the entrance or inspection

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by any duly authorized employee of the department of any premises, or vehicle that the employee is authorized to enter and inspect, shall be fined not more than \$500. Any action taken to impose or collect the penalty provided for in this section shall be considered a civil action. [Eff] (Auth: HRS §§321-11, 321-18) (Imp: HRS §§321-1, 321-11)

§11-48-14 Injunctive and other relief. The director may institute a civil action in any court of competent jurisdiction for injunctive and other relief to prevent any violation of this chapter, any rule adopted pursuant to this chapter, or any condition of a permit or variance issued pursuant to this chapter, without the necessity of a prior revocation of the permit or variance, to impose and collect civil penalties, to collect administrative penalties, or obtain other relief. The court shall have power to grant relief in accordance with the Hawaii rules of civil procedure. [Eff] (Auth: HRS §§321-9, 321-11) (Imp: HRS §§321-1, 321-11)

§11-48-15 Litigation. No part of this chapter shall be allowed as a defense against suit brought by any person for damage alleged to occur as a result of the operation of ventilation systems. [Eff] (Auth: HRS §§321-9, 321-11) (Imp: HRS §§321-1, 321-11)

§11-48-16 Severability. If any provision of this chapter, or the application thereof to any person or circumstance is held invalid, the remainder of this chapter, and the application of the chapter to other persons or circumstances, shall not be affected thereby. [Eff] (Auth: HRS §§321-9, 321-11) (Imp: HRS §§321-1, 321-11)

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DEPARTMENT OF HEALTH

Chapter 11-39, Hawaii Administrative Rules, was repealed and chapter 11-48, Hawaii Administrative Rules, on the Summary Page dated _____, was adopted on _____, following public hearings held on _____, after public notice was given in the _____ on _____.

The repeal of chapter 11-39 and the adoption of chapter 11-48 shall take effect ten days after filing with the Office of the Lieutenant Governor.

Chiyome Leinaala Fukino, M.D.
Director of Health

APPROVED:

Linda Lingle
Governor
State of Hawaii

Dated: _____

Filed

APPROVED AS TO FORM:

Deputy Attorney General